## Talking Points for <u>Forest Practices</u> Riparian Rule <u>Analysis & Protecting Cold</u> Water Criterion: 6/19 EQC Meeting and 6/23 BOF Meeting

## **Overall**

- EPA supports the preliminary results of a rules the sufficiency analysis on that greater riparian buffers are needed for small and medium fish-bearing streams.
  - a. Hundreds of peer-reviewed studies collected through development of Temperature Guidance supports the need to preserve cold water.
  - b. This will improve salmon habitat and help to keep cold water in the system.
  - c. This is the getting to the end of a process that started with the Oregon Coastal Salmon Restoration Initiative, State's IMST, and Sufficiency Analysis in 1990s where peer-reviewed studies show the need for larger buffers on small and medium fish-bearing streams.
- 2. We commend OR for using published and peer reviewed scientific data in guiding the application of its nonpoint source rules and BMPS.

## **Temperature Guidance and Cold Water**

- 1. In 2003, EPA issued the Region 10 Temperature Guidance as part of four year effort to identify temperature water quality standards that would protect and aid in the recovery of salmonid species in the Pacific Northwest.
  - a. In developing the Guidance, EPA developed a-workgroups of technical experts in the field that reviewed hundreds of scientific studies, and formed a multiagency workgroup that assisted EPA in issuing two public drafts of the Guidance for public comment.
  - The Guidance includes recommended numeric water quality temperature criteria to protect salmonides species in the Pacific Northwest.
  - c. In addition, the gGuidance recommends States and Tribes include provisions in their standards to prevent additional warming of rivers and streams with ESA-listed salmonids with summer maximum temperatures currently colder than the numeric criteria.
- 2. In 2003, Oregon adopted the numeric temperature criteria and the PCW criteria consistent with the EPA's Region 10 Temperature Guidance.
- 3. The following three primary points summarize the scientific and legal rationale of why EPA's Guidance recommended the cold water protection provision and why EPA believes the Oregon's PCW standard is an important element of the State of Oregon's standards to protect and aid in the recovery of ESA listed salmon and bull trout.
  - a. \_\_First, as illustrated by the numerous 303-listed stream segments in Oregon as well as Washington and Idaho, human development has significantly warmed rivers and streams in the Pacific Northwest.
    - i. This warming is identified by NOAA and FWS as a factor in the decline of ESA-listed salmon and bull trout and a limiting factor in their recovery.
    - ii. Excessively warm river stream temperatures have truncated the number of stream reaches suitable for spawning and over-the-summer juvenile rearing as well as increased the stress on adult and juvenile migration in lower river segments during the summer months.
    - iii. As such, the remaining suitable and optimal summertime salmon and bull trout habitat is believed to be critical to the survival of these species, and the principles of conservation biology indicate we should protect these last remaining areas from further thermal degradation, while we make progress on improving thermally degraded stream reaches.
    - a-iv. Additionally, the predicted region-wide increase in stream temperature from climate change (1-2°C in the next 30 years) further highlights the need to avoid increasing stream temperatures in the remaining thermally suitable habitat for salmon and bull trout.

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- <u>b.</u> Second, increased warming upstream can further contribute to downstream exceedances of temperature standards.
  - <u>i.</u> Numerous Temperature TMDLs show that in many cases, upstream reaches must be cooler than the numeric criteria in order to meet downstream criteria.
  - b-ii. Oregon PCW serves to ensure that further contributions to downstream exceedances are avoided.
- c. Third, the technical rationale in support of the numeric temperature criteria included assumptions about spatial variation in temperature patterns.
  - <u>i.</u> For example, the numeric criteria are intended to be met at the lowest downstream extent of the use and temperatures upstream at higher elevations will generally be cooler.
  - <u>ii.</u> This is why EPA recommended numeric temperature criteria at the "upper end" of the optimal range for certain life stages of salmonids in the Temperature Guidance.
  - <u>iii.</u> The numeric criteria were challenged in court as not being sufficiently protective and the spatial technical assumptions associated with numeric criteria were an important aspect in EPA's defense and the court's upholding of the numeric criteria.
  - reiv. The PCW provision is an important provision that supplements the numeric criteria to ensure the spatial patterns associated with the numeric criteria are attained.